exgarde Exporter

User Guide

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Foreword

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Cautions and Notes

The following symbols are used in this guide:

CAUTION! This indicates an important operating instruction that should be followed to avoid any potential damage to hardware or property, loss of data, or personal injury.

NOTE. This indicates important information to help you make the best use of this product.

Contents

1. Overview 1
   1.1 Caveats 1
2. Installation 2
3. Starting the program 3
   3.1 First-time start-up 3
   3.2 File Menu 4
      3.2.1 Export Settings 4
      3.2.2 Login 4
      3.2.3 Log out 4
      3.2.4 Exit 4
4. Export Options Dialog 5
   4.1 General 5
   4.2 Data Options 6
   4.3 Export Options (File Destination) 6
   4.4 Export Options (Serial Destination) 7
   4.5 Export Options (Database Destination) 8
5. Program functions 9
   5.1 Changing Settings 9
   5.2 Auto Log Off 9
   5.3 Example Output. 10
6. External Database Definitions 11
   6.1 Event table Schema 11
7. Connecting using ODBC 12
8. Connecting using OLE DB 17
9. Specification 20
   9.1 Configurable Options 20
      9.1.1 Export Data 20
      9.1.2 Export Format 20
      9.1.3 Export Destination 20

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1. Overview

The EXporter application works in conjunction with TDSi's access control software, EXgarde, and is designed to make event data available to other, non-TDSi, applications.
When EXgarde is running, Access Control Units are polled continuously for event data. If an event has occurred then this is processed by EXgarde and stored in a database. The event may also be displayed in one or more event windows on one or more workstations, and may also result in consequential actions (e.g. a command to a CCTV controller).
Although EXgarde can be configured so that a specific event at a specific device (e.g. a reader) results in serial data output to an external device such as a CCTV controller, nothing in the data tells you anything about the event. The data contains an instruction set designed to choose a camera, a PTZ-preset and a monitor – so only if each event from each device were configured to have a unique combination of these three parameters would the data allow you to identify the event and the device. Even then, card-reader data would not contain any data about which card had been used.
The EXporter application is designed to overcome these limitations and to provide an easy method for third party applications to make use of event data within EXgarde, without requiring access to the EXgarde SQL database and thereby potentially compromising security, functionality and performance.

1.1 Caveats

An EXgarde system may comprise multiple ACUs on one com-port, multiple com-ports on a PC, and multiple PCs in the same system. Depending on how many of each and also on the number of events occurring at each ACU in-between successive polls each there may be a delay of a few seconds before EXgarde retrieves any given event. This software is not suitable for time-critical applications.
If communication with an ACU is halted for any reason (e.g. the EXgarde system is shut down, or a communications cable is disconnected) then event data is held within the ACU subject to available memory. When communication with the ACU resumes, the event data will be retrieved with correct time-stamps - but it is important to realise that the time stamp does not include seconds.
The same event can be exported more than once – but only if user intervention occurs. This will happen if a user stops then re-starts the display. User intervention can also result in events never being exported even though the application is running. For these reasons it is recommended that this application runs on an unattended, secured workstation.
If the application is configured to export data to a file, then the file will continue to grow – at the risk of filling up the entire disk. It is necessary for the third party application to delete the file from time to time to prevent this from happening.

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2. Installation

The program is a single file, EXporter.exe, which can run on any workstation in an EXgarde system and is included as part of the standard EXplorer PC installation. Simply add this as a shortcut on your desktop or even add to the startup folder to be launched whenever the PC is booted.

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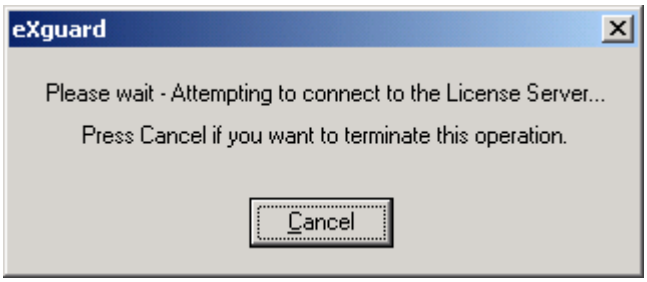
3. Starting the program

The program should normally be started after the EXgarde License server. If started when the License Server is not running, a dialog will be displayed:


eXguard
Please wait - Attempting to connect to the License Server...
Press Cancel if you want to terminate this operation.
Cancel

This dialog will remain until the EXgarde License Server has started and connected to the database, or until the Cancel button is pressed.

3.1 First-time start-up

The application cannot output data until the output options have been set, so the first time the program starts, the log-in screen is automatically presented to allow set-up to commence:

This is pre-populated with Tenant and User information from either the last successful log-in or (if no-one has ever logged into any EXgarde application on this computer) the defaults for a new database. For a new database the login information is:

- Tenant = Landlord
- Operator = Admin
- Password = tdsi

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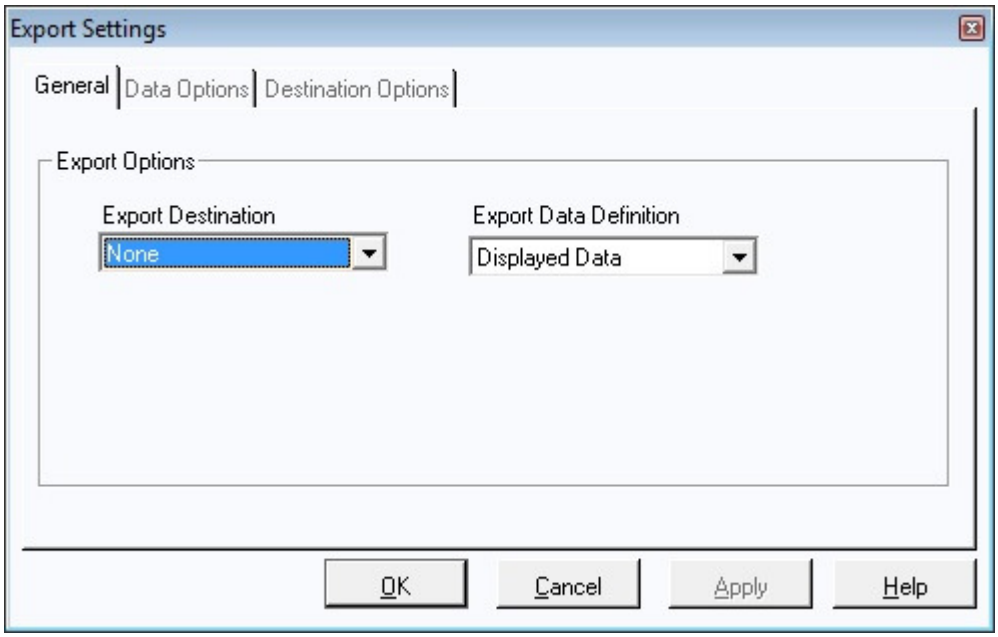
All entries except the password are case-sensitive.
After a successful log-in the **Export Settings** dialog is displayed.



If EXporter has previously been configured it automatically connects to the License Server and starts exporting events. To change configuration or even exit all the necessary functions are under the File Manu.

3.2 File Menu

3.2.1 Export Settings

This will allow a user to configure the destination and format of the exported events. This option is only enabled once a user has logged in.

3.2.2 Login

Presents the login screen above at any time to allow a user to log into EXporter and to change settings or terminate the application.

3.2.3 Log out

Allows a logged in user to log out and thus securing the application. This allows the application to be left running without concern that someone could change the settings or terminate the application. This option is only enabled once a user has logged in.

3.2.4 Exit

This will close down EXgarde EXporter. This option is only enabled once a user has logged in

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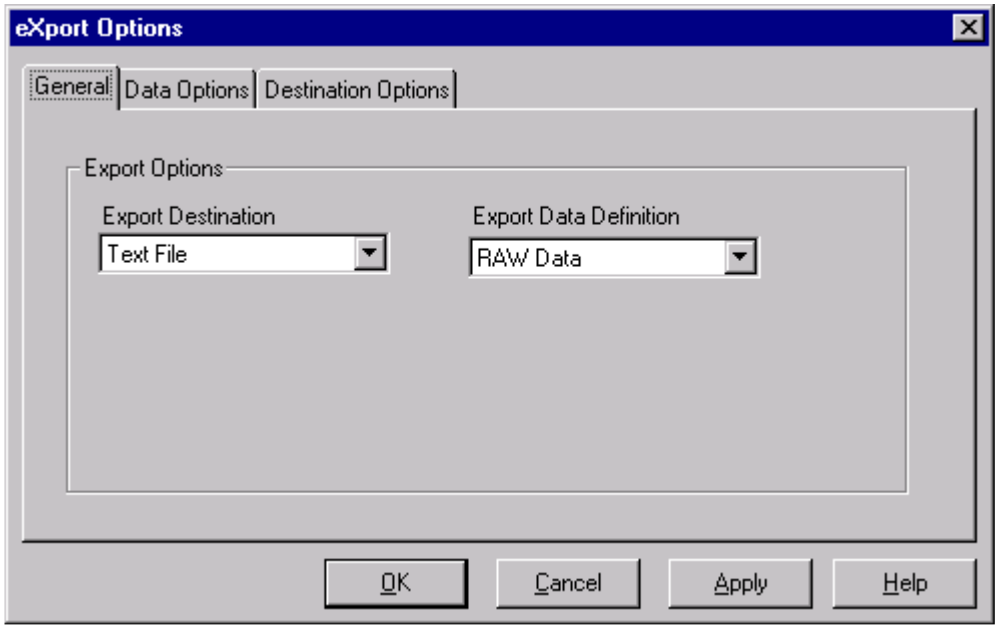
4. Export Options Dialog

4.1 General



This window allows you to define:

1. The export destination. This can either be None (so EXporter can be used as a standalone event view), a text file, a serial port or to an external database.
2. The Data Definition. This being the translated 'Display Data', 'RAW data' format (object and event type identification numbers) or 'Both'.

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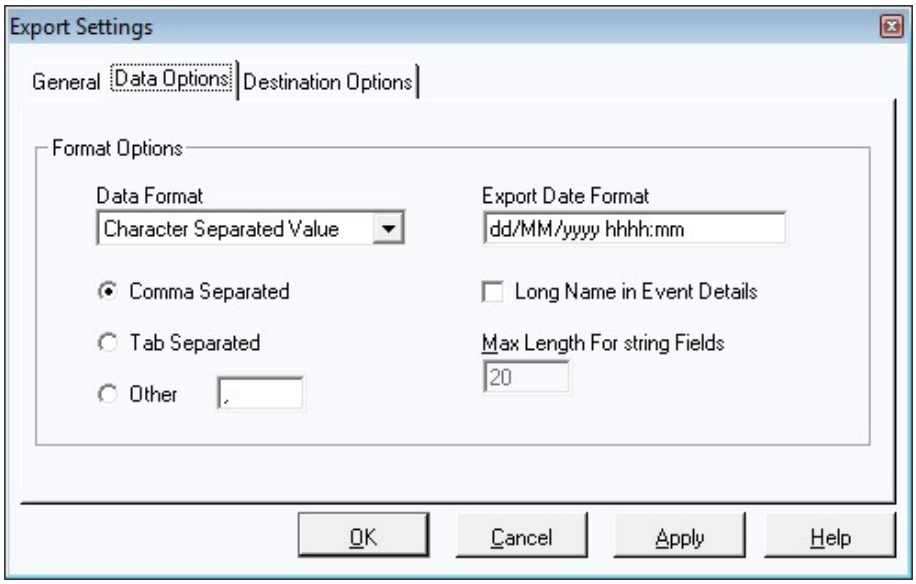
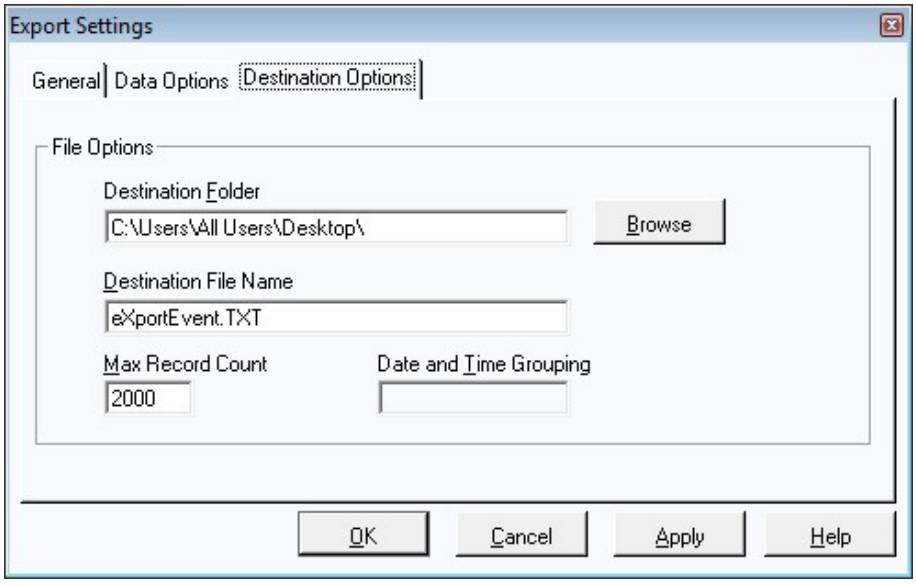
4.2 Data Options



This window allows you to define the Data Format Options. Either Character Separated value or fixed with. Fixed width being 20 characters for each field. If Character Separated Value is selected then the user can select from the standards or either a comma or a tab as the separating character or specify their own.

4.3 Export Options (File Destination)



The above dialog is for a text file destination. Here you define the path where to store the text file(s) and the file name.
EXporter has the option of creating a sequence of files. A new file will be generated after a specified number of events as defined by 'Max Record Count' or will the date/time stamp of the event match a 'Date & Time Grouping' mask. If you wish to generate a sequence then the filename must

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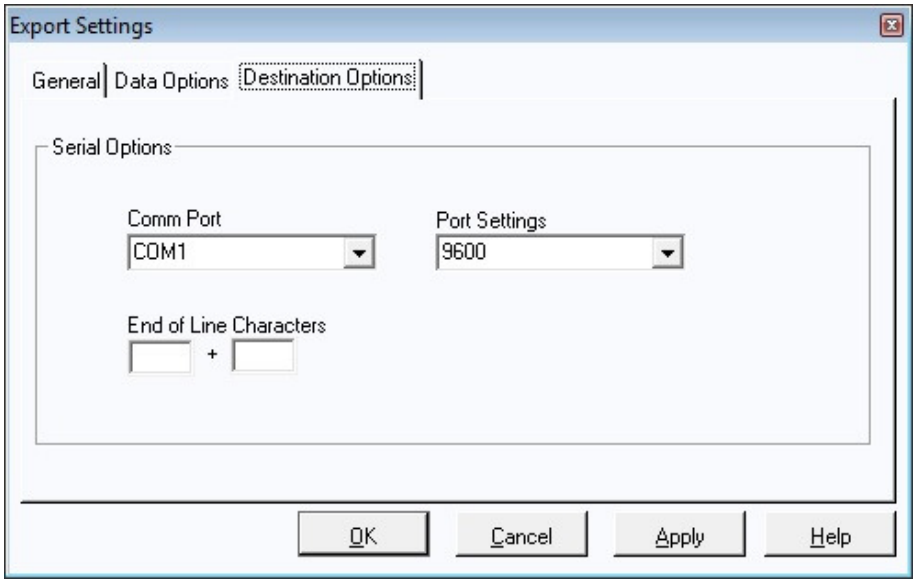
include #1, for the above example ‘eXportEvent#1.TXT’ will create files eXportEvent1.txt, eXportEvent2.txt each containing 2000 events.
If a single file is required or you wish to use the Date & Time Grouping specify a Max Record Count of 0.
To use Date & Time Grouping a mask is specified giving the data/time parameters that must match, e.g. for a file to be generated every hour the mask would be ‘yymmddhh’ or for a days events ‘yymmdd’ and the unique value for the mask is inserted into the filename instead of #1. So for a day mask from 20/03/05 the files created would be eXportEvent050320.txt, eXportEvent050321.txt, etc

4.4 Export Options (Serial Destination)

For Serial Port options, you can define the serial port and the baud rate. Parity and data bits are fixed at 8 data bits, No parity and 1 stop bit.



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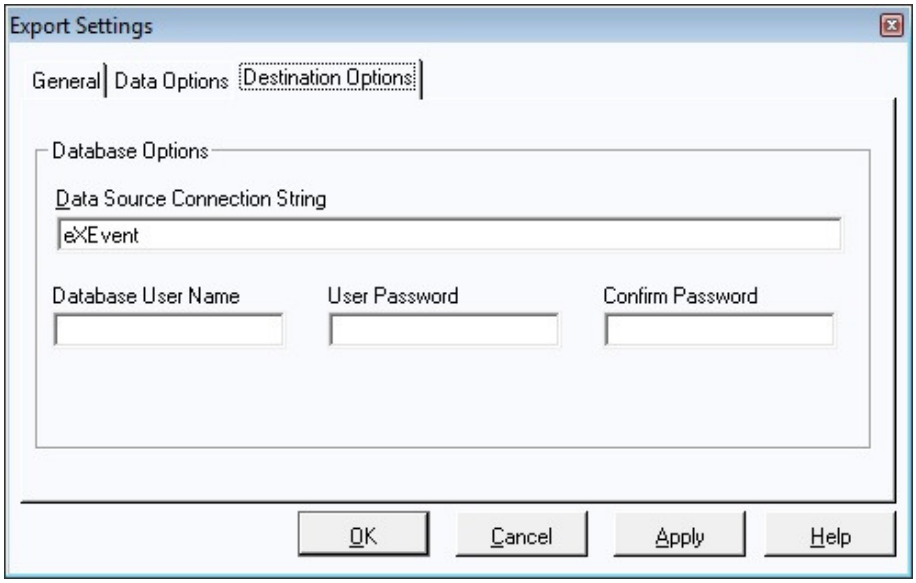
4.5 Export Options (Database Destination)



For a database the user needs to define the ODBC data source name, the user name to the database and the password. The password is entered twice to confirm it has been entered correctly. The definition of the structure of the database table used by EXporter is covered in a later section but it is assumed the database contains a table call EventHistory of the format specified and that the database has a defined ODBC connection. Currently the format is fixed to be Display Data only

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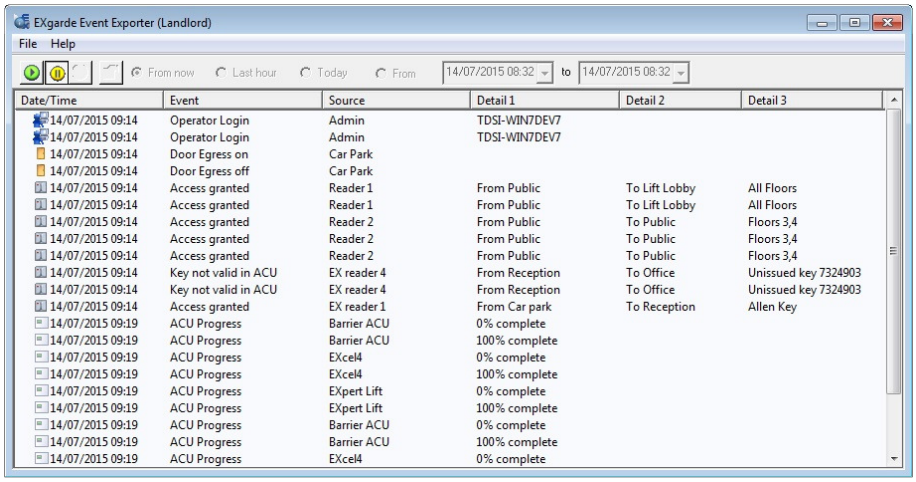
5. Program functions

Provided that output options have been set, the application will automatically start without an operator having to log in.


EXgarde Event Exporter (Landlord)
File Help
From now Last hour Today From 14/07/2015 08:32 to 14/07/2015 08:32
Date/Time Event Source Detail 1 Detail 2 Detail 3
14/07/2015 09:14 Operator Login Admin TDSI-WIN7DEV7
14/07/2015 09:14 Operator Login Admin TDSI-WIN7DEV7
14/07/2015 09:14 Door Egress on Car Park
14/07/2015 09:14 Door Egress off Car Park
14/07/2015 09:14 Access granted Reader 1 From Public To Lift Lobby All Floors
14/07/2015 09:14 Access granted Reader 1 From Public To Lift Lobby All Floors
14/07/2015 09:14 Access granted Reader 2 From Public To Public Floors 3,4
14/07/2015 09:14 Access granted Reader 2 From Public To Public Floors 3,4
14/07/2015 09:14 Access granted Reader 2 From Public To Public Floors 3,4
14/07/2015 09:14 Key not valid in ACU EX reader 4 From Reception To Office Unissued key 7324903
14/07/2015 09:14 Key not valid in ACU EX reader 4 From Reception To Office Unissued key 7324903
14/07/2015 09:14 Access granted EX reader 1 From Car park To Reception Allen Key
14/07/2015 09:19 ACU Progress Barrier ACU 0% complete
14/07/2015 09:19 ACU Progress Barrier ACU 100% complete
14/07/2015 09:19 ACU Progress EXcel4 0% complete
14/07/2015 09:19 ACU Progress EXcel4 100% complete
14/07/2015 09:19 ACU Progress EXpert Lift 0% complete
14/07/2015 09:19 ACU Progress EXpert Lift 100% complete
14/07/2015 09:19 ACU Progress Barrier ACU 0% complete
14/07/2015 09:19 ACU Progress Barrier ACU 100% complete
14/07/2015 09:19 ACU Progress EXcel4 0% complete

The above is the main window that displays the events as they are exported. Note that the display does not represent the format of the data export – the display always shows data in this format regardless of the options selected.
When an operator is logged in, the exporting of data can be stopped, paused and started, and the type of events that will be exported can be selected by clicking on the Properties button.
When no operator is logged in, only the Pause option is available.
Note that if the “From: To” option is selected, once the display has refreshed then no further events will be displayed or exported.

5.1 Changing Settings

Changing the settings is done via the Export Options dialog. To change these settings an operator must log in. Any operator registered in EXgarde may log in regardless of the nature their rights. See previous section for details.

5.2 Auto Log Off

The operator will be automatically logged-off the system 5 minutes after logging in. This will not stop the export process, just disable the options.

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5.3 Example Output.

1	21/11/2002 15:34,Operator Update Keyholder,Admin,A.Holder,,
2	2002-11-21- 15.34.47.632000,2548,3012,3012,0,2109,0,0,0,A.Holder
3	21/11/2002 15:34,Operator Update Keyholder,Admin,A.Holder,,;2002-11-21- 15.34.49.375000,2549,3012,3012,0,2109,0,0,0, A.Holder

The above examples are:

- Exported data in translated data format. (As seen on the event window.)
- Exported RAW data format (As stored in the database.)
- Exported both formats.

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6. External Database Definitions

The EXgarde Event EXporter will export to an ODBC data source containing the following table. At present the table is only defined for Display data format. Later versions will contain structures to match the features available for file and serial output.

6.1 Event table Schema

Table Name: “EventHistory”

Table Columns:

Name	Type	Length	Allow Zero Length
EventDate	Date & Time	N/A	N/A
EventMessage	String	50	No
EventDetails1	String	50	Yes
EventDetails2	String	50	Yes
EventDetails3	String	50	Yes
EventDetails4	String	50	Yes

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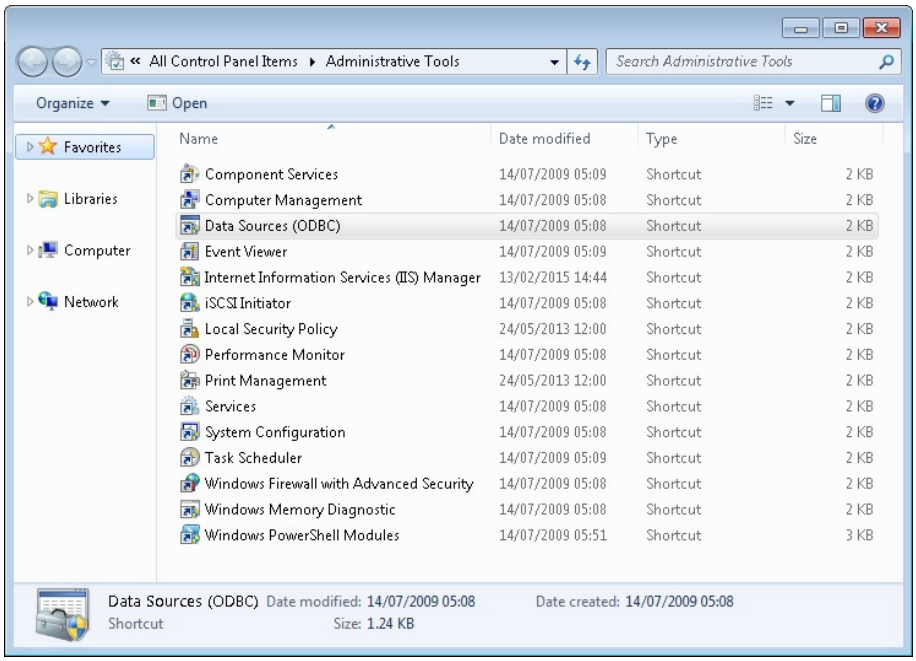
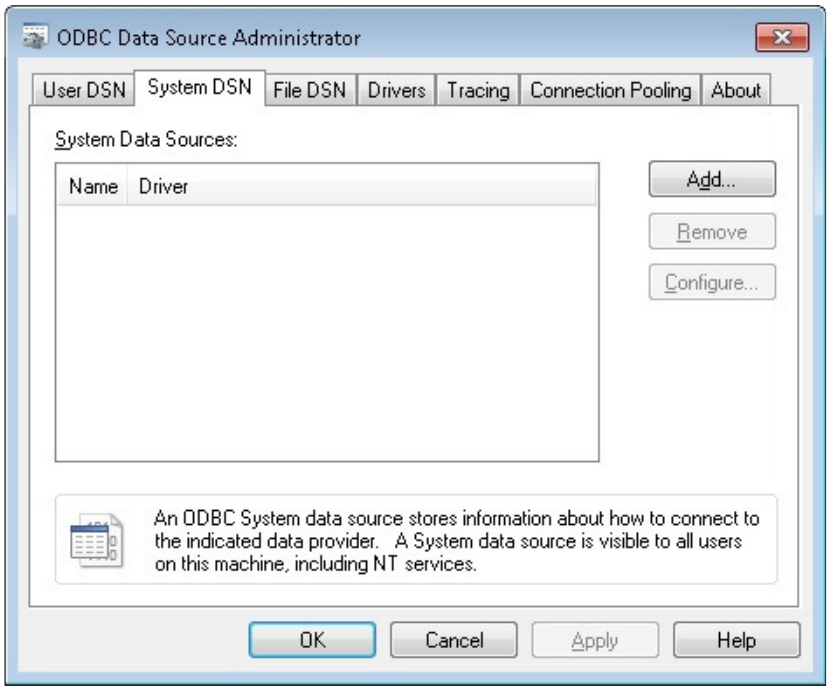
7. Connecting using ODBC

For ODBC a data source needs to be defined within Windows. For Windows 7 the ODBC Data Source Administrator is in the Control Panel under Administrative Tools.


All Control Panel Items ▸ Administrative Tools
Search Administrative Tools
Organize
Open
Favorites
Libraries
Computer
Network
Name
Date modified
Type
Size
Component Services 14/07/2009 05:09 Shortcut 2 KB
Computer Management 14/07/2009 05:08 Shortcut 2 KB
Data Sources (ODBC) 14/07/2009 05:08 Shortcut 2 KB
Event Viewer 14/07/2009 05:09 Shortcut 2 KB
Internet Information Services (IIS) Manager 13/02/2015 14:44 Shortcut 2 KB
iSCSI Initiator 14/07/2009 05:08 Shortcut 2 KB
Local Security Policy 24/05/2013 12:00 Shortcut 2 KB
Performance Monitor 14/07/2009 05:08 Shortcut 2 KB
Print Management 24/05/2013 12:00 Shortcut 2 KB
Services 14/07/2009 05:08 Shortcut 2 KB
System Configuration 14/07/2009 05:08 Shortcut 2 KB
Task Scheduler 14/07/2009 05:09 Shortcut 2 KB
Windows Firewall with Advanced Security 14/07/2009 05:08 Shortcut 2 KB
Windows Memory Diagnostic 14/07/2009 05:08 Shortcut 2 KB
Windows PowerShell Modules 14/07/2009 05:51 Shortcut 3 KB
Data Sources (ODBC) Date modified: 14/07/2009 05:08 Date created: 14/07/2009 05:08
Shortcut Size: 1.24 KB

The data source can either be defined as a User DSN (available only if this particular Window user must be logged in) or a System DSN (available if any Windows user is logged in). The usual is as a System DSN. On the System DSN tab press Add to create a new data source.



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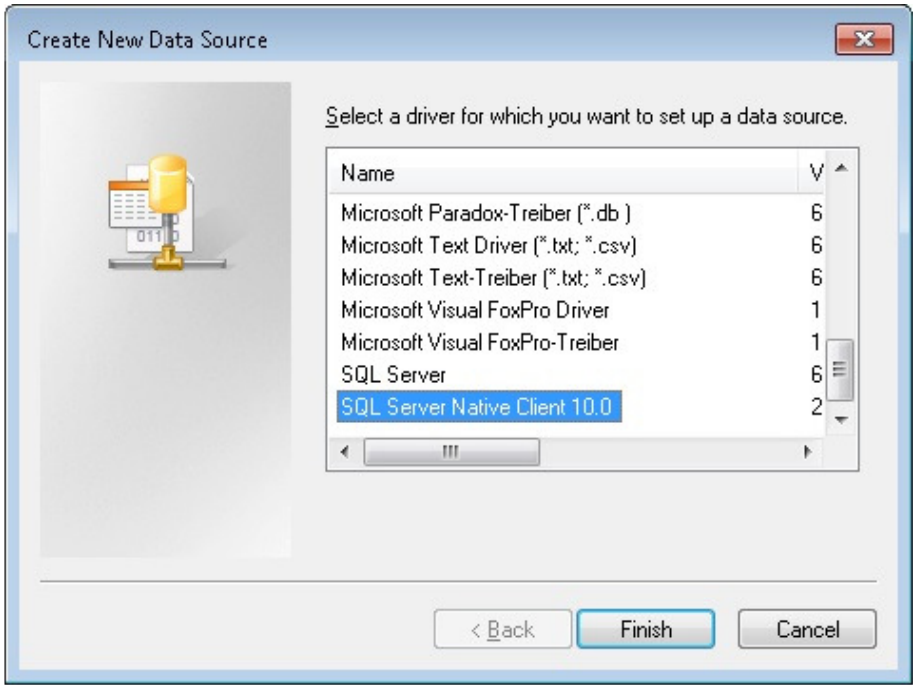
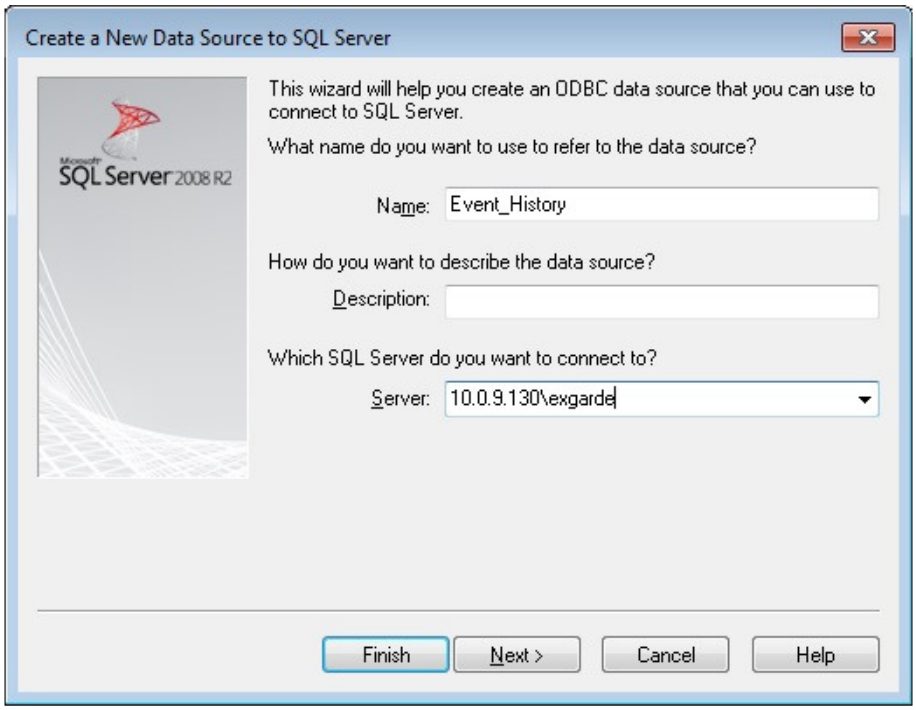
Select SQL Native Client or SQL Server Native Client 10.0 and click Finish.

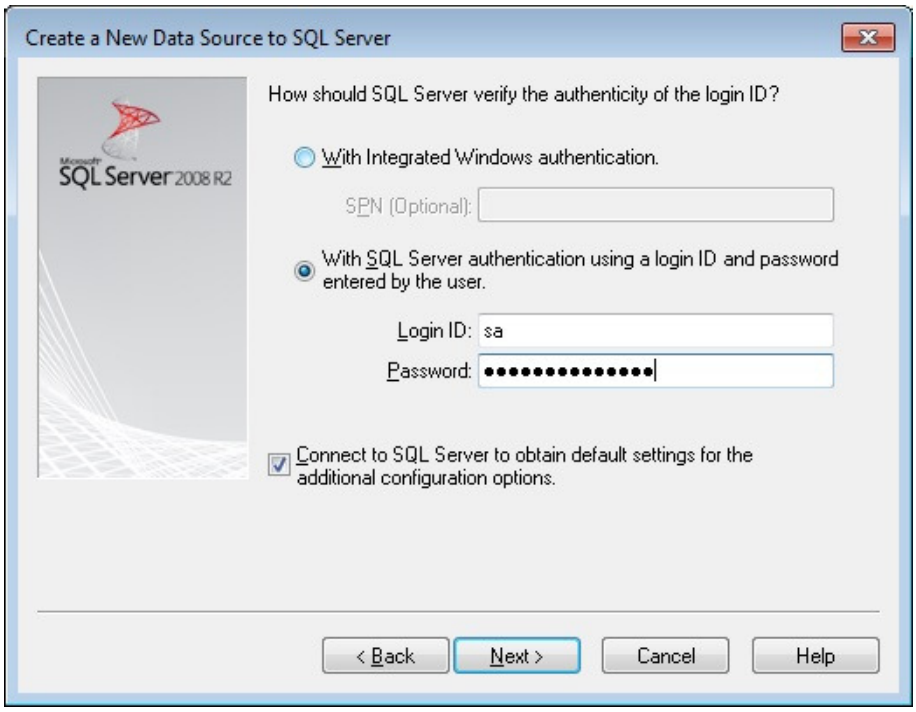


In the new window enter the details of the data source.

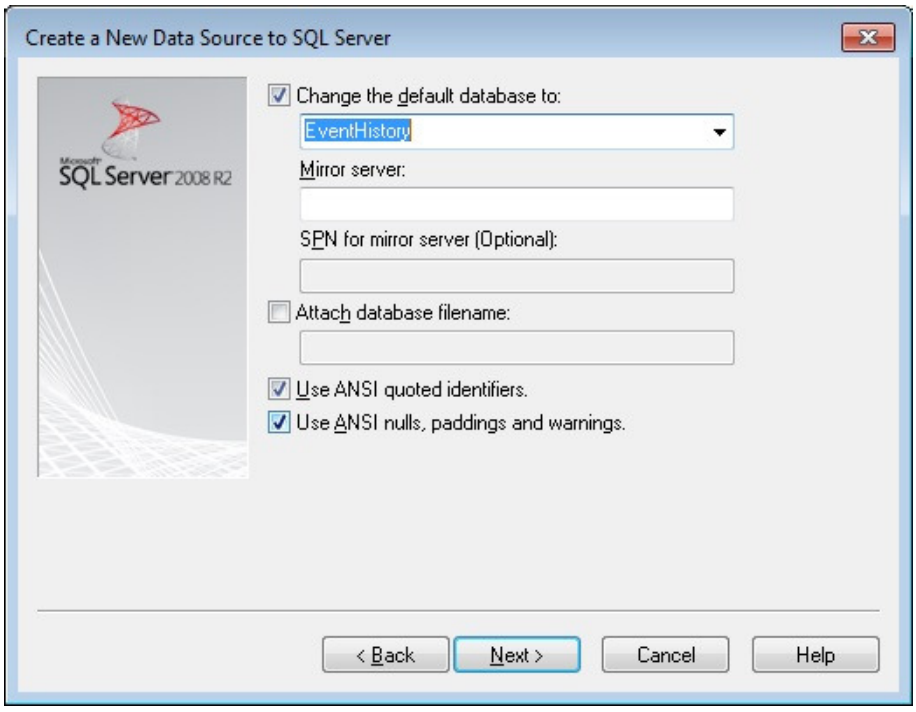
- Name: Name of ODBC Connection
- Description: Description of the data source
- Server: The server that EXgarde is running on, normally this is SQLEXPRESS/EXGARD


Create a New Data Source to SQL Server
SQL Server 2008 R2
This wizard will help you create an ODBC data source that you can use to connect to SQL Server.
What name do you want to use to refer to the data source?
Name: Event_History
How do you want to describe the data source?
Description:
Which SQL Server do you want to connect to?
Server: 10.0.9.130\exgarde
Finish
Next >
Cancel
Help

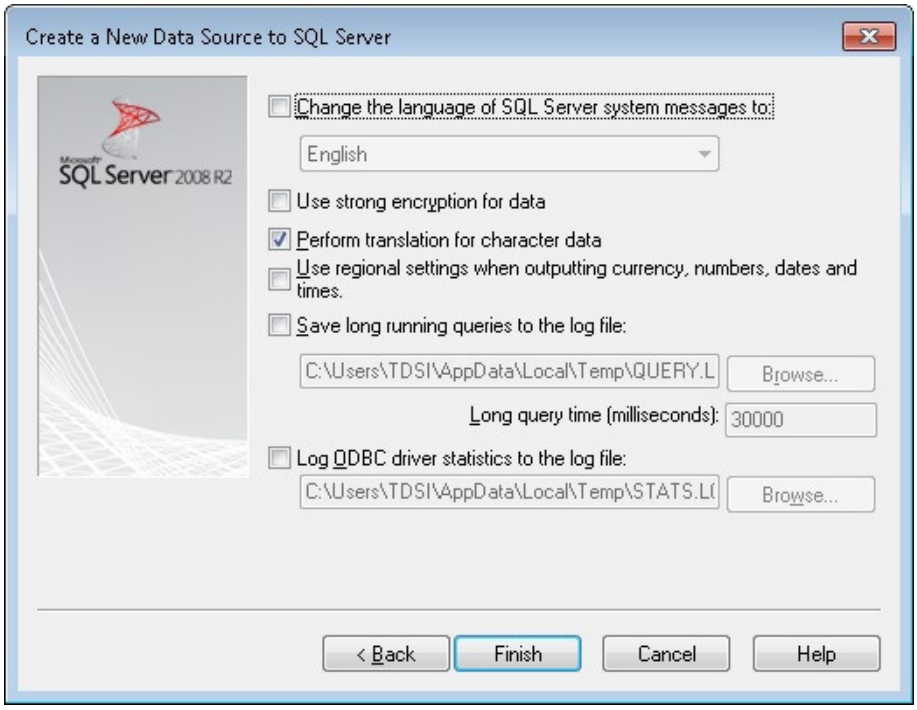
Then select SQL Server authentication and enter the database user details that you configured within EXgarde and click Next.


Create a New Data Source to SQL Server
How should SQL Server verify the authenticity of the login ID?
With Integrated Windows authentication.
SPN (Optional):
With SQL Server authentication using a login ID and password entered by the user.
Login ID: sa
Password:
Connect to SQL Server to obtain default settings for the additional configuration options.
< Back
Next >
Cancel
Help

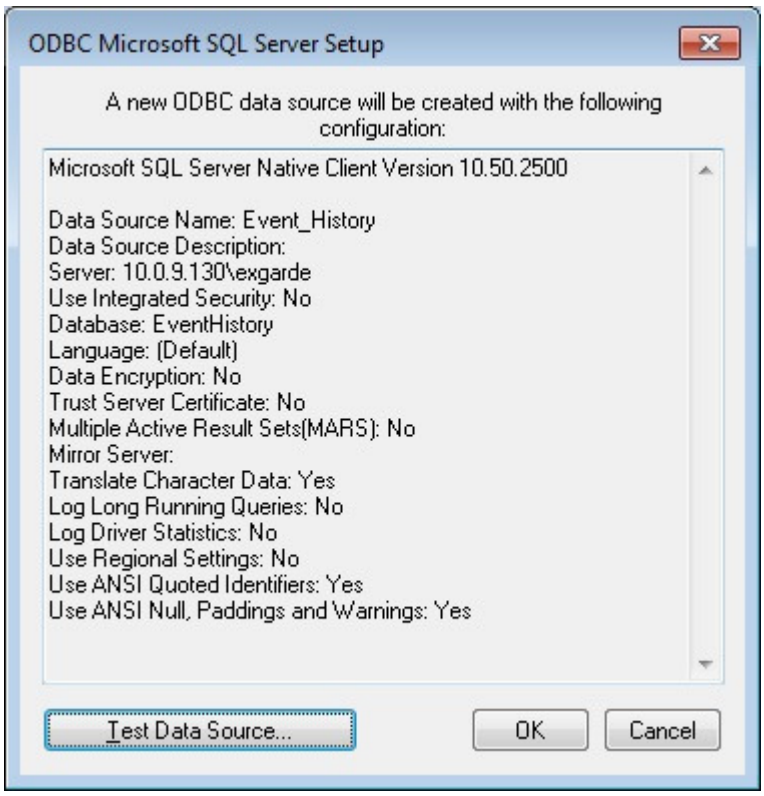
Select both the ANSI options as shown below then select Next



On the next screen click finish to complete the setup.



You should then be presented with a summary screen.


ODBC Microsoft SQL Server Setup
A new ODBC data source will be created with the following configuration:
Microsoft SQL Server Native Client Version 10.50.2500
Data Source Name: Event_History
Data Source Description:
Server: 10.0.9.130\exgarde
Use Integrated Security: No
Database: EventHistory
Language: (Default)
Data Encryption: No
Trust Server Certificate: No
Multiple Active Result Sets(MARS): No
Mirror Server:
Translate Character Data: Yes
Log Long Running Queries: No
Log Driver Statistics: No
Use Regional Settings: No
Use ANSI Quoted Identifiers: Yes
Use ANSI Null, Paddings and Warnings: Yes
Test Data Source...
OK
Cancel

To test the new connection click on the Test Data Source button

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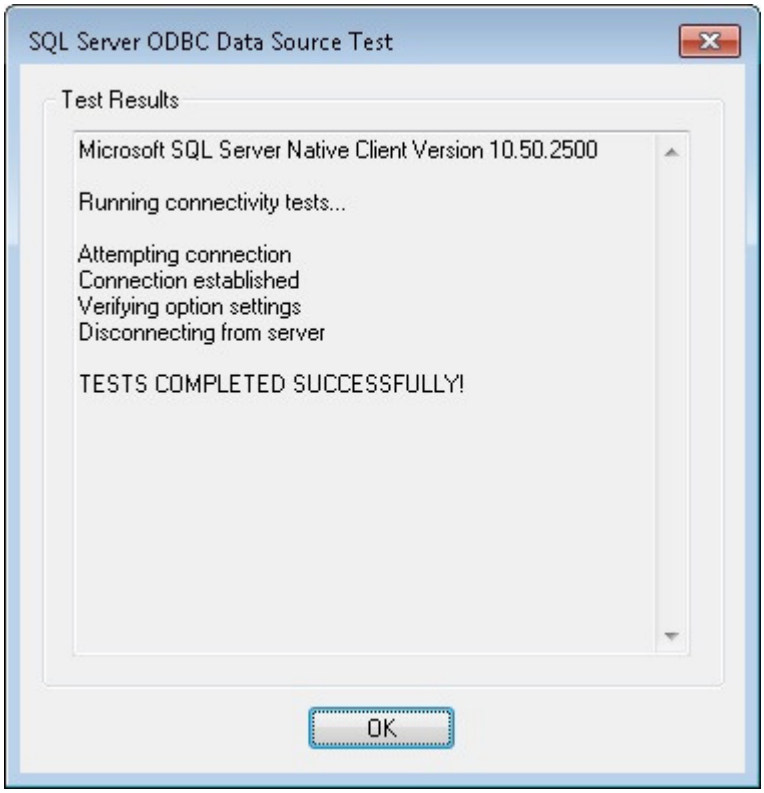
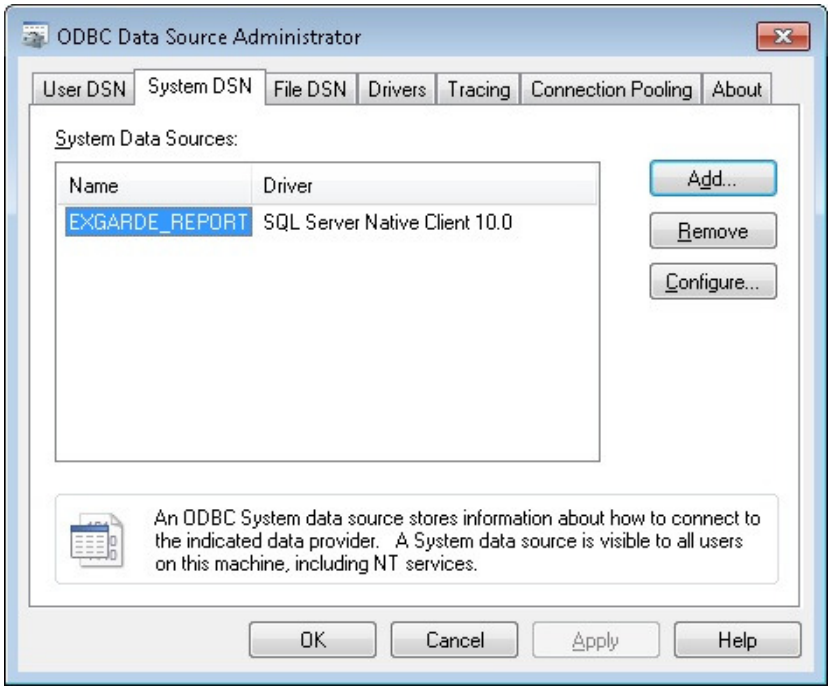
If the test is successful you should get the result below.



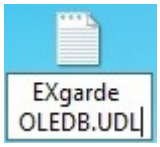
Click OK twice to complete the ODBC creation.



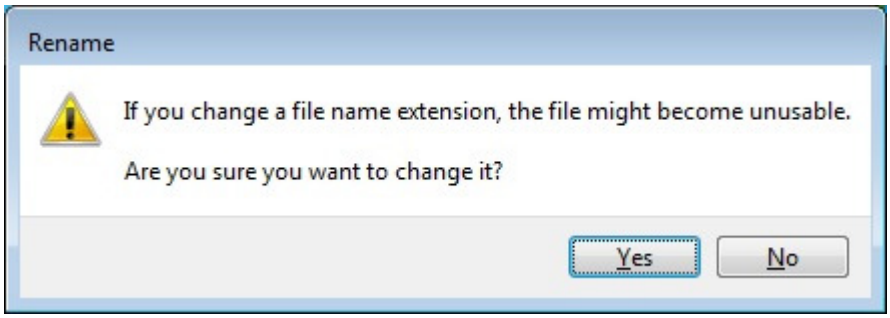
Now that the ODBC connection has been created you can use it to connect to EX from whatever application you are using.

8. Connecting using OLE DB

To connect to an EXgarde database using an OLEDB, you will first need to create a .UDL file. To do this, create a new text document, rename accordingly and change the file type to UDL.



You will be prompted to confirm file type



The text document will now be displayed as a .UDL file shown below.

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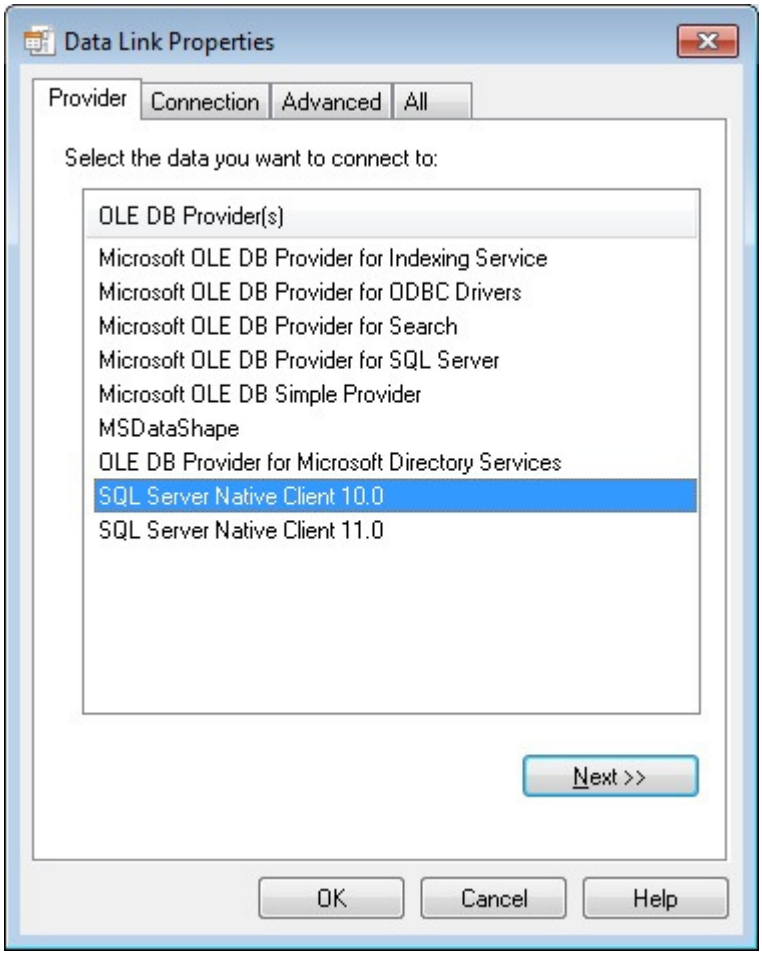
The next step will be to open the UDL file and change the provider settings.



Select the SQL Server Native Client 10.0 and then click Next to continue.

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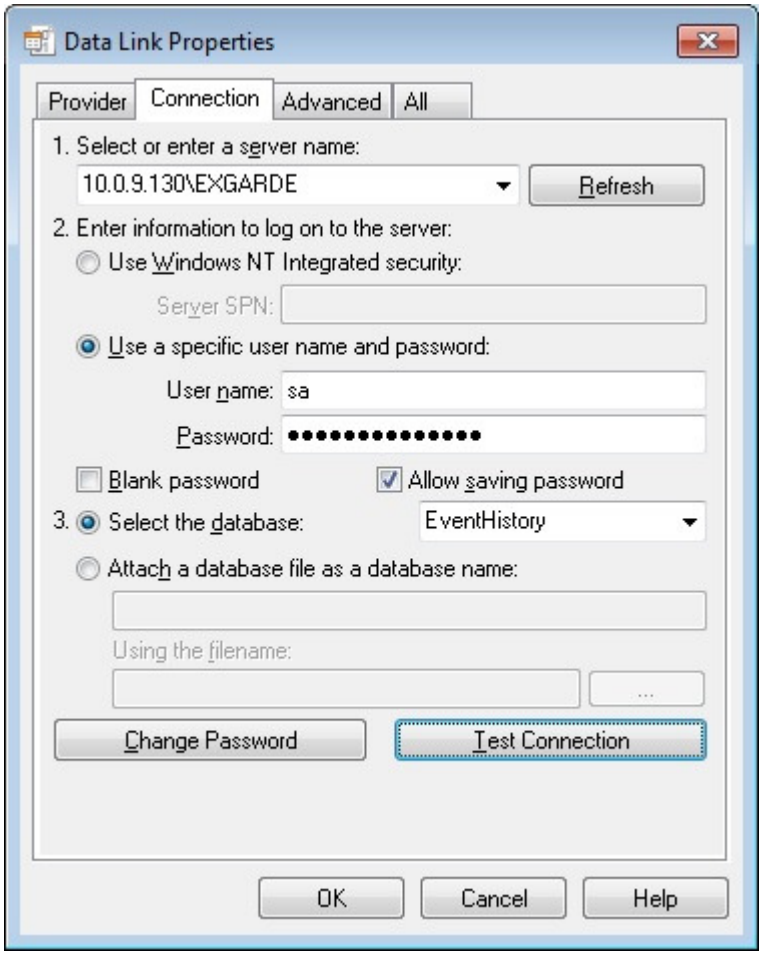
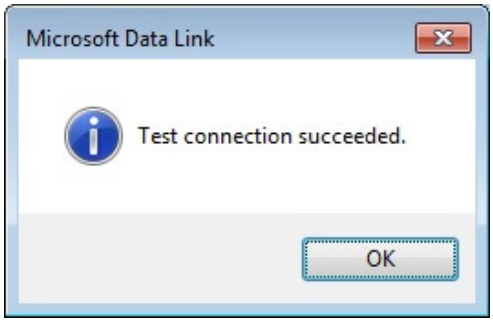
The Next window will be where you specify the connection details.



You will need to know the following information to set up the connection correctly.

- Server Name
- User Name
- Password
- Database on the specified server

When you have entered the correct details click the Test Connection button. If the details are correct you will receive the following confirmation message.



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9. Specification

9.1 Configurable Options

9.1.1 Export Data

- None (always the EXporter to be used as a standalone event window)
- Translated Display Data (As displayed in event window)
- Raw data (As stored in database)
- Both (Semi colon between the 2 data types)

9.1.2 Export Format

- Character Separated Values (comma, tab, other)
- Fixed Length

9.1.3 Export Destination

- File
- Serial Port
- External Database

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